University of Edinburgh SCONUL/LIRG Project on Impact Measurement

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Project Report

The impact of subject-specific electronic resources on the research process using ERIC (Education Resources Information Center) and SciFinder Scholar electronic resources as exemplars.

Authors:
Christine Love-Rodgers, Liaison Librarian (Divinity, Education, PPLS)
Rowena Stewart, Liaison Librarian (Chemistry, Mathematics, Physics)

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Executive Summary

As part of a UK wide study attempting to assess the impact libraries have on the work and study of their members, Edinburgh University Library (EUL) decided to "measure the impact of subject-specific electronic resources on the research process", using the ERIC (Education Resources Information Center) and SciFinder Scholar electronic resources as exemplars.

The project methodology included analysis of the databases' coverage of University of Edinburgh research publications and surveys of active researchers requesting feedback on their use of the exemplar databases in the context of their overall online resource use. The surveys also asked researchers how online resources impacted upon their research. Survey response rates were 40% (Education) and 25% (Chemistry).

Survey results indicated that ERIC broadly supports the School of Education's research needs and that researchers are actively using ERIC, but could use it more. Time-saving and current awareness in the research process were seen as the key impacts of online resources on research. Education staff also saw support from the library, particularly in the form of training sessions, as important in aiding their research process.

Staff and research students in the School of Chemistry identified the key impact of SciFinder Scholar on research to be time-saving and confidence in the search results. They identified a link between its availability and the quality of their research output to the extent of the University's ability to compete nationally and internationally in chemistry research being compromised should the resource not be available to them.

Respondents recognised ERIC and SciFinder Scholar each to be one of a range of resources available to them and used them in conjunction with others as they thought appropriate. However, the Chemists' use of SciFinder Scholar exceeds the Educationalists' use of ERIC. The impact of both resources was felt by respondents in the time saved finding relevant information for their work and also in the currency and depth of information available.

1. Project background

This project was part of a UK wide study attempting to assess the impact libraries have on the work and study of their members. For its part in this study, Edinburgh University Library (EUL) staff decided to "measure the impact of subject-specific electronic resources on the research process". The ERIC (Education Resources Information Center) and SciFinder Scholar electronic resources were used as exemplars, in an attempt to assess how useful each is to the work of research staff of the School of Education and School of Chemistry, respectively. EUL's full project plan is available at:

http://www.jiscmail.ac.uk/files/LIS-IMPACT/University_of_Edinburgh_Project_Plan.doc

ERIC indexes the journal and technical literature in the field of education and corresponds to the printed *Resources in Education* and *Current Index to Journals in Education*. It covers over 775 journals, conferences, meetings, government documents, theses, dissertations, reports, audiovisual media, bibliographies, directories, and monographs from 1966 to date.
Links to ERIC can be found, together with links to other Education online Library resources, at:
http://www.lib.ed.ac.uk/resbysub/education.shtml

SciFinder Scholar provides online access to Chemical Abstracts Service with abstract and index information from 9,000 chemistry and related scientific journals from 1907 to present, as well as from conference proceedings, technical reports, books, dissertations and web preprints. Includes patent information from more than 50 active patent-issuing authorities, plus information on more than 24 million substances, 51 million sequences, 8 million single- and multi-step reactions and 200,000 inventoried or regulated chemicals. Chemical structure and reaction searching is possible. Access is from the desktop and requires client software and IP validation (for more see http://www.lib.ed.ac.uk/resbysub/chem.shtml)

2. Project Methodology

2.1 *Coverage analysis*
The number of publications of active researchers to appear in ERIC were reviewed. For Education, active researchers were defined as a group of 70 staff in the School who were identified by the Education Research School as active researchers. ERIC was searched for publications by these staff.
Publications' lists were supplied by the School of Chemistry for the years 2001, 2002, 2003 and SciFinder Scholar interrogated for the works listed.

2.2 *Usage data*
Available usage data for the year 2004 was gathered for both resources.

2.3 *Survey*
The surveys differed due to local circumstances

2.3.1 Eric: A survey was sent out by e-mail on 1 March 2005 to 70 staff in the School of Education, who had been identified by the Education Research School as active researchers. Paper copies of the survey were also available to research staff attending 2 training sessions in March 2005. All replies were received by 24 March 2005. 28 replies were received, making the overall response rate 40%.

2.3.2 SciFinder Scholar: Postgraduate students (all research), post doctoral research staff and academic staff in the School of Chemistry received a copy of a survey by e-mail on 10th March 2005 (during semester and two weeks before the Easter break). From an approximate maximum of 260, 64 replies were returned representing 40% academic staff, 24% postgraduate students and 15% post doctoral research staff from the School of Chemistry.

Supplementary questions were sent in an email to 22 survey respondents who indicated they were willing to receive further contact. 12 supplementary responses were received from seven academic staff, one member of research staff and four postgraduate students.

3 Analysis

3.1 *Expenditure*

3.1.1 ERIC is currently available at no charge to the University when it is supplied as part of a package of databases from three different database providers, Dialog, CSA and OCLC. ERIC is also freely available on the web. The web version does not provide access to cross searching with other databases or full text documents, which ERIC via database providers does.

3.1.2 SciFinder Scholar: The cost of SciFinder Scholar is paid jointly from the Science & Engineering interdisciplinary fund and as well as its Chemistry fund. SciFinder Scholar is the most expensive science and engineering bibliographic database to which EUL subscribes. In agreement with its supplier, details of the payment for SciFinder Scholar are confidential.

3.2 *Coverage*

3.2.1 ERIC: The results of the coverage analysis for ERIC showed that the majority of active researchers had publications appearing in the database (see Table 1). ERIC contained a total of 243 publications by Education research staff.

Staff with publications in ERIC	41	59%
Staff without publications in ERIC	29	41%
	70	100%

Table 1. Results of searching ERIC for publications of active researchers in the School for Education.

For staff whose publications were not covered, feedback from the survey reported that ERIC's international and US focus made it less relevant to researchers concerned with Scottish Education in particular. Other researchers in the group belonged to disciplines allied to Education such as Sports Science and Educational Psychology which were not covered by ERIC.

3.2.2 SciFinder Scholar: Table 2. displays the good coverage of the School of Chemistry's publications in SciFinder Scholar. Those publications without records tended to be books, annual reports, conference papers or in journals outwith the field.

Year of publication	Total no. of School of Chemistry publications	%age of School of Chemistry publications with SciFinder Scholar records
2001	182	98
2002	222	89
2003	172	80
2001-2003	576	89

Table 2. Results of searching SciFinder Scholar for publications supplied by School of Chemistry for 2001, 2002 and 2003.

3.3 *Access & Use*

3.3.1 ERIC: Survey responses indicated that 19 out of the 26 respondents had used ERIC. When asked how they accessed ERIC, responses are summarised in Table 3. below:

1. Freely available on the web	7
2. CSA	5
3. OCLC First Search	4
4. Dialog	3

Table 3. access routes to ERIC used by survey respondents

Comments indicated respondents chose their routes to ERIC principally from habit, although the freely available website was also popular because no password was required for access.

3.3.2 SciFinder Scholar: Usage figures provided by CAS for SciFinder Scholar cannot be disclosed, however the number of initial queries or searches by staff and students of the University of Edinburgh continues to increase (Aug04-Jul05 saw an increase of 35% on the previous year the figure for which was a 56% increase on the year before)

University of Edinburgh IP addresses connecting to SciFinder Scholar are available from CAS. Matching them to physical locations, suggests approximately 98% of connection attempts in 2004 were made from School of Chemistry registered IP addresses.

Table 4 displays estimates from School of Chemistry survey respondents of hours per week spent searching the research literature and the percentage of that time spent using SciFinder Scholar. As a couple of respondents commented, the need to search the research literature is not constant, "preparing proposals or writing papers" requires more of it, so the figure for hours per week will vary considerably in reality.

User category	Average hrs per week, to nearest half hour, searching research literature (lowest–highest)	%age literature searching time spent on SciFinder Scholar (lowest-highest)	Average hrs per week, to nearest half hour, searching for information on SciFinder Scholar (lowest-highest)
Postgraduate	3.5 (0.75–10)	50 (10-85)	2 (0.5-8)
Research Staff	5.5 (1-12.5)	49 (25-85)	3 (1-8)
Academic Staff	5 (1-20)	47 (5-90)	2.5 (0.5-7)
All Respondents	4.5 (0.75-20)	49 (5-90)	2 (0.5-8)

Table 4: Averages (and lowest-highest) by user category of School of Chemistry responses for amount of literature searching per week and the percentage of that time spent on SciFinder Scholar.

3.4 *Information content*

3.4.1 ERIC: Respondents were asked what online library resources provided by Edinburgh University Library they had used for their research in 2004-5.

5 most used resources in order	**5 least used resources in order**	**5 least known resources in order**
1. Social Sciences Citation Index	1. *Child Data	1. ASSIA Plus
2. British Education Index	2. ASSIA Plus	2. Child Data
3. ERIC	3. Australian Education Index	3. Australian Education Index
4. PsycINFO	4. ERA Online	4. ERA Online
5. Australian Education Index (joint)	5. PsycINFO	5. British Education Index (joint)
5.ERA Online(joint)		5. PsycINFO (joint)

(* The subscription to ChildData was cancelled as part of subscription reviews in the course of 2004-5.)

Table 5: Online resources used by School for Education respondents

Six respondents indicated that they used other online library resources, examples included "online journals" and "IBSS". Two respondents said they did not use online library resources for their research. Responses to this question will have been shaped by the widely different research fields of researchers in Education – for instance some staff are Educational Psychologists and may use databases such as PsychInfo exclusively, others are sociologists and will focus on sociology and social science databases.

3.4.2 Searching the literature (SciFinder Scholar survey results): Respondents to the SciFinder Scholar survey indicated whether given reasons for information searching required them to do so "frequently",

"occasionally" or "never" (table 6). Less frequent information searching does not represent a lesser need for the information sought, i.e searching occasionally for information on sourcing hard to find materials does not make the need to find that information less acute than the need to find information for grant proposals, even though the need to search for information for grant proposals arises more often.

Looking at the responses as a whole, most possible reasons for information searching did not prompt respondents to do so and only *writing up research* and *refereeing papers or grant proposals* were reasons for respondents "frequently" searching for information (81% and 83% respectively). "Occasionally" respondents needed to search for information for *sourcing hard to find materials* and *generating publication or citation figures of the work of others* (56% and 55% respectively).

All other reasons were selected by most respondents as "never" being reasons for searching for information. This result arises because postgraduates formed the highest proportion of respondents and had the most focussed reasons for information searching; selecting "never" more than the other category of respondent. Postgraduates (and research staff) searched for information least for *teaching purposes.* Most postgraduate respondents "frequently" search for information for *refereeing papers or grant proposals* (81% respondents) and *writing up research* (69% respondents) and "occasionally" for *sourcing hard to find materials*.

From Table 6, it can be seen the highest percentages of academic and research staff "occasionally" search for information for five of the given reasons. For *writing up research* and *refereeing papers or grant proposals* most academic and research staff searched for information "frequently" (100% of academic staff for *writing up research*). Furthermore, for these two reasons, no respondent in either category selected the frequency "never". All academic respondents also search for information for d*eveloping research plans* (50% frequently, 50% occasionally).

	Frequently (% of respondents)				**Occasionally** (% of respondents)				**Never** (% of respondents)			
	All	**A**	**R**	**P**	***All***	**A**	**R**	**P**	***All***	**A**	**R**	**P**
developing research plans	*27*	**50**	**40**	11	*30*	**50**	**40**	17	***44***	0	20	**72**
generating publication or citation figures of the work of others	*8*	0	0	14	***55***	**67**	**80**	42	*38*	33	20	**44**
generating publication or citation figures of your own work	*8*	0	0	14	*41*	**72**	**90**	11	***52***	28	10	**75**
locating articles citing your own work	*13*	6	20	14	*42*	**89**	**70**	11	***45***	6	10	**75**
refereeing papers or grant proposals	***83***	**89**	**80**	**81**	*14*	11	20	14	*3*	0	0	6
sourcing hard to find materials	*22*	11	30	25	***56***	**61**	**60**	**53**	*22*	28	10	22
teaching purposes	*14*	39	10	3	*28*	**56**	40	11	***56***	6	**50**	**83**
writing up research	***81***	**100**	**90**	**69**	*16*	0	10	25	*3*	0	0	6

Table 6: Percentage of respondents by category who selected "frequently", "occasionally" or "never" for frequency of searching for information for given reasons. *All* = all respondents, A=academic staff, R=research staff, P=postgraduate students. For each reason, percentages in bold indicate the frequency selected by the highest percentage of each category of School of Chemistry respondents.

Other reasons for searching for information were provided by respondents in a free-text section. The reasons supplied required respondents to search for information frequently. All were provided by postgraduate student respondents unless otherwise indicated. (A) – academic staff, (R) – research staff: reading for interest (A), keeping up to date with current literature (R), table of contents of various journals (R), surveying the literature to find trends, looking for help with data interpretation, finding method/technical information, locating literature data of chemicals, determining if compounds I have synthesised are known in the literature, searching for reaction methods (R), properties of chemicals.

3.4.3 Resource features determining information resource choice (question 5, SciFinder Scholar survey): Respondents were asked to rank listed features in order of importance when deciding which searchable information resource to use (zero being of no importance, one of least importance and 10 the most important). This was probably the least understood question and responses averaged around the

middle ranks, although *Results functions* ranked at seven and *Interface Design* at four. There was little difference between the respondent categories, except for the feature *Breadth of subjects covered, ie do you want a one-stop-shop resource?,* the research staff and postgraduate respondents' rankings averaged at four but academic staff rankings averaged at seven.

3.4.4 Resource features of individual resources assessed (question 4, SciFinder Scholar survey): Respondents' assessment of resource features (one for poor, two for average, three for good) put SciFinder at the top of the list for all features offered apart from *relevance of results to your search* for which Full-text journals received the highest assessment, followed by Web of Science. Full-text journals received second highest assessment in four categories, Beilstein in three (*age of earliest records*, *search functions* and *ability to search by molecular formula or molecular structure*).

Responses to the supplementary questions mentioned the efficacy of a SciFinder Scholar search: "SciFinder has by far the best algorithms to find the most relevant (and numerous) articles according to what you type into the search engine. Others are pretty poor". The particular usefulness of the Refine option (searching within search results) in SciFinder Scholar was mentioned in two of the supplementary responses.

SciFinder Scholar was the resource for which respondents were most confident in their assessment of features, rating above general search engines (second). Full-text journal sites received the third highest confidence ratings followed by Web of Science, then Beilstein. Unsurprisingly, this matches the order of the most used resources (see table 7 below) except confidence in assessment of full-text journals is one order lower than their use and general search engines, one order higher.

3.4.5 Resources used (Question 4, SciFinder Scholar survey): One of the responses to a supplementary question supports the view researchers tend to use the resources to which they're accustomed: the subject being use of SciFinder Scholar "…it took me a little while to get around to trying SciFinder – people tend to stick with what they know…" Table 7 displays the resources most and least used by School of Chemistry respondents. The right column displays the least known resources and it's similarity to the least used resources, supports the quote. Printed abstracts are a probable exception, known but not used because superseded by electronic versions.

5 <u>most</u> used resources in descending order (average percentage time spent searching for information on given resources)	**5 <u>least</u> used resources in descending order** (average percentage time spent searching for information on given resources)	**5 least <u>known</u> resources in descending order** (number of respondents who did not know the resource existed)
SciFinder Scholar (49%)	ZETOC (0%)	ZETOC (53)
Full-text journal sites (15%)	Printed abstracts (0.4%)	Pre-print and open access repositories (29)
General web engines (10%)	Pre-print and open access repositories (0.4%)	Gmelin (on CrossFire) (28)
Beilstein (on CrossFire) (8%)	Gmelin (on CrossFire) (1%)	Journal Citation Reports (on WoK) (27)
Web of Science (8%)	Journal Citation Reports (on WoK) (1%)	Printed abstracts (23)

Table 7: Most and least used resources by School of Chemistry respondents based on average time spent searching for information on given resources. Also the least known resources based on number of respondents who did not know the resource existed.

3.4.5.1 Beilstein and Web of Science *cf* SciFinder Scholar: After SciFinder Scholar, of the other bibliographic databases included in the survey options, Beilstein (MIMAS's CrossFire platform) and Web of Science were the most used and assigned the highest ranked functions and confidence in those rankings. Supplementary responses suggest SciFinder Scholar's greater subject and source publication coverage (including the addition of patent information, Arxiv.org preprint records and chemical supplier catalogues) are reasons for using it by preference. However, three supplementary responses mention using Beilstein (MIMAS's CrossFire platform) in conjunction with SciFinder Scholar to be sure of a comprehensive search and two of these mention the superiority of Beilstein on CrossFire for reaction searching, eg: "I have to say that Beilstein/CrossFire is superior to SciFinder for reaction searching, but both have to be used because each program finds articles/references that the other one misses"

3.5 *Enhancing Research*

3.5.1 ERIC: In the survey, respondents were asked to agree or disagree with a number of statements about how an electronic resource helped them with their research**.**

Respondents were most likely to agree with:

- Using ERIC saves me time in my research (16 agreements)
- Using ERIC helps me keep up to date with work in my fields of research (14 agreements)
- Undertaking research in a similar field and to a similar level to that which I currently do, but without access to ERIC, would put me at a disadvantage to those researchers in my field with access to ERIC (10 agreements)

Respondents were least likely to agree with:

- ERIC has proved useful in interdisciplinary research undertaken in conjunction with colleagues in other Schools of the University of Edinburgh (9 disagreements)
- Undertaking research in a similar field and to a similar level to that which I currently do, but without access to ERIC, would put me at a disadvantage to those researchers in my field with access to ERIC (6 disagreements)
- I use ERIC when formulating research grant applications (5 disagreements)

Respondents were also asked about ways in which the Library could help them to use online library resources such as ERIC to benefit their research. The top three responses were:

- Provide more training sessions (11 responses)
- Provide more information about new resources or changes to existing ones (7 responses)
- Purchase further resources (e.g. more e-journals) (2 responses)

3.5.2 SciFinder Scholar: One of the supplementary questions sent by email after the SciFinder Survey asked "What differences does it make to your work having access to SciFinder Scholar" (or for those who had never worked somewhere without it "what differences to your work do you imagine not having access to SciFinder would make? / What would you miss?")

All responses to this supplementary question indicated access to SciFinder Scholar was considered beneficial. Three of the responses were moderately worded eg "I find that I do more literature searches and author searches. It also allows me to keep up to date with research in my area more easily" – research staff.

More strongly worded responses included the examples below all from academic staff:

- "A big difference"
- "Much, much, much quicker to carry out thorough searches"

and ranged to:

- "Quite simply, now scifinder exists we cannot afford to work without it"
- "Not having SciFinder Scholar would compromise our work to such an extent that I may even consider leaving my academic position and moving my research group to another university that could afford it. This may sound flippant, but it really is that important!"

The specific benefits of access to SciFinder Scholar compared to working without access included the database's coverage (mentioned in nine supplementary responses) and search options and performance (mentioned in eight supplementary responses), eg:

- "Literature search using keyword or an author's name. SS is supreme here, with no other database having the size or "searchability" "
- "before scifinder searching the literature in such a way that one could be reasonably confident nothing had been missed was extremely laborious if not impossible. Scifinder makes this process easy…"
- "working without SciFinder Scholar would entail having to spend far more time doing repetitive searches with other tools having to try many different spellings"

Confidence a literature search has been comprehensive allows claims of novelty to be made for work which "can help in deciding the impact and journal to publish the work" and, obversely, allows such claims to be investigated by journal referees: "SciFinder has been invaluable in quickly determining if work is novel, or if authors have submitted similar work elsewhere". Location of "cutting-edge papers" influences grant proposals too. One supplementary response also mentioned more ideas for research being generated

because it was possible to search for work on "off the wall" ideas as results would indicate if it was a "wild" idea or not.

Good coverage and retrieval lead to time savings, mentioned specifically in four supplementary responses, eg:

- Two minutes in comparison to an hour going through printed abstracts
- "I have been able to undertake faster, higher-quality research…Cliché? An hour with SciFinder has been worth a week in the lab."

Two responses, both from academic staff, linked the purchasing of access to SciFinder Scholar with the national/international perspective of the School of Chemistry:

- "Any institution with ambitions toward national (let alone international) competitiveness in science MUST have access to scifinder" [emphasis contributor's own].
- "If UoE [University of Edinburgh] sees itself as a world-leading center of research, and wishes to compete with others, it must be prepared to provide absolutely the best available (re)search tools, such as are available at top institutes elsewhere. Since the impact of SciFinder is transitory and difficult to measure, the demand for it, and availability of it, at top research institutes around the globe, must surely speak volumes"

4. Recommendations

The recommendations in 4.1 have been acted upon in 2005 with the support of the Academic Library Representative for Education and of the Education Research School. The recommendations in 4.2 were included in the report presented to the Science and Engineering College Library Committee. The report was based on the information gathered for the Impact Project.

4.1 ERIC:

- Access routes to ERIC should be simplified and the benefits of using the different database platforms available made clear (This was covered in training sessions)
- Develop training programme and training materials for researchers in Education e.g.
    - Information skills workshop sessions for research staff (9 were held in April- December 2005)
    - Act in liaison with the Transferable skills programme to provide other opportunities for information skills training for researchers (Discussions continuing)
    - Investigate possibilities for online provision of Education relevant training materials (Pdf handouts now available online)
    - Prepare training presentations in the context of accessing library resources via MyEd portal (Presentations updated)
- Continue provision of library newsletter to alert staff to new developments (Regular newsletters distributed)

4.2 SciFinder Scholar:

- Funding for access to SciFinder Scholar should be maintained.
- Attempts to promote SciFinder Scholar to other Schools and research groups should be made.
- Promotion of resources with low recognition should be considered by library staff.

5. Conclusions

5.1 ERIC: ERIC is one of the core group of databases used by researchers, which also includes Social Sciences Citation Index and British Education Index. The analysis shows that ERIC broadly supports research needs and that researchers are actively using ERIC, but could use it more. In addition, there are four different database platforms to access ERIC, but users are tending to use just the one most familiar to them, which may mean that they are missing out on the benefits of cross-searching ERIC with other databases such as LLBA and British Education Index. However, because of its US/international focus and the broad spread of disciplines which make up the School of Education, it can only ever be one of a range of resources required by researchers in the School.

Respondents to the survey clearly felt that electronic resources like ERIC enhanced the effectiveness of their research process, particularly by saving them time and keeping them up to date. However research staff also felt that their research process would be aided by further support from the library in the form of training sessions and news alerts.

5.2 SciFinder Scholar: Staff and students at the University of Edinburgh's School of Chemistry estimate they spend an average of 4.5 hours per week searching for information for their work or studies; most frequently for writing up research and for refereeing papers or grant proposals.

SciFinder Scholar is the information resource of choice. It has the highest recognition of information resources available to Chemistry staff and students; in assessing the features for the different resources, they rate SciFinder Scholar highest and with the most confidence for nearly all features and it is the resource on which they estimate they spend the most time searching for information. Although the need to use other resources to ensure a comprehensive literature search and the superiority of Beilstein/CrossFire's reaction searching features are recognised, SciFinder Scholar is considered by the School of Chemistry to be an essential resource for a University wishing to compete internationally, even nationally, in chemistry research.

5.3 Overall: For both databases, their key impacts on the research processes are:

- time saving
- enabling the University to compete in research on an international level

The impact on research of any electronic resource, whether at a cost or not, is increased by active support from Library liaison staff through training and awareness services.

APPENDIX I – ERIC Survey

Edinburgh University Library

Using ERIC for your research questionnaire

Edinburgh University Library is involved in a UK wide study attempting to assess the impact libraries have on the work and study of their members. For its part in this study, EUL has decided "to measure the impact of subject-specific electronic resources on the research process". We have decided to use the ERIC (Education Resources Information Center) online bibliographic resource as an exemplar, and this questionnaire is an attempt to assess how useful ERIC is to the work of research staff of the School of Education. We will also be asking research staff at the School of Chemistry to think about the contribution that SciFinder Scholar has made to their research. EUL's full project plan is available at:

http://www.jiscmail.ac.uk/files/LIS-IMPACT/University_of_Edinburgh_Project_Plan.doc

The results of this investigation into ERIC's use and impact will be reported to the School of Education's Learning and Research Resources Committee and discussed as part of an ongoing debate about the provision of online library resources.

ERIC indexes the journal and technical literature in the field of education and corresponds to the printed *Resources in Education* and *Current Index to Journals in Education*. It covers over 775 journals, conferences, meetings, government documents, theses, dissertations, reports, audiovisual media, bibliographies, directories, and monographs from 1966 to date.
Links to ERIC can be found, together with links to other Education online Library resources, at:

http://www.lib.ed.ac.uk/resbysub/education.shtml

YOUR NAME (optional):

The seven questions in this questionnaire should take about 15 minutes to complete.

Please return completed questionnaires to:

Christine Love-Rodgers
Liaison Librarian for Education
Moray House Library,
Dalhousie Land
St John Street,
Edinburgh EH8 8AQ

Or as an email attachment to Christine.Love-Rodgers@ed.ac.uk

Please return completed questionnaires by 18 March 2005.

The questionnaire begins on the next page…

1. What online library resources provided by Edinburgh University Library have you used for your research in 2004-5? Please enter a cross in the box which best corresponds to your use of online library resources

	Frequently	Occasionally	Never	Didn't know about
ASSIA Plus				
Australian Education Index				
British Education Index				
Child Data				
ERA Online				
ERIC				
PsycINFO				
Social Sciences Citation Index				
Other:				
I don't use online library resources for my research				

2. If you responded that you used ERIC, please tell us about how you usually access it by entering a cross in the relevant box:

	I use this route to access ERIC	I didn't know about this route	Wasn't sure how to get to this route	I didn't use this route because …
Dialog http://www2.dialogatsite.com/				
OCLC First Search http://firstsearch.uk.oclc.org/athens/				
CSA http://auth.athensams.net/?ath_returl=http://www.csa1.co.uk/htbin/dbrng.cgi&ath_dspid=CSA.IDS				
Freely available on the web http://www.eric.ed.gov/				

3. If you are using one or more of the above routes to access ERIC, could you tell us why you have chosen your particular route:

I've always used this route, I didn't know that there were different routes to choose from	
Dialog allows me to search BEI & AEI within the same interface	
OCLC FirstSearch provides the full text of some documents	
Other / Comments :	

4. Please enter a cross in the numbered column that best corresponds to the strength of your (dis)agreement with the statements below:

1 = strongly DISAGREE
2 = disagree
3 = agree
4 = strongly AGREE

	1	2	3	4
I use ERIC when formulating research grant applications *e.g. to prevent me submitting grant applications which would have been turned down, because from it I found results of proposed research to have already been published*				
Using ERIC saves me time in my research *e.g I can access it online from home and it saves me time coming into the library*				
Using ERIC helps me keep up to date with work in my fields of research				
Undertaking research in a similar field and to a similar level to that which I currently do, but without access to ERIC, would put me at a disadvantage to those researchers in my field with access to ERIC				
ERIC has proved useful in interdisciplinary research undertaken in conjunction with colleagues in other Schools of the University of Edinburgh				

Please supply in the space below, any comments raised by the statements in this question (4).

5. Are there any ways in which the Library could help you to use online library resources such as ERIC to benefit your research?

Please enter a cross against as many suggestions as apply.

Provide more training sessions (please give details)	
Provide more information about new resources or changes to existing ones (please give details)	
Change Education Subject Guide Library web pages (please give details)	
Purchase further resources (please give details)	
Other (please give details)	
None	

6. Please enter in the space below, comments about using ERIC you have not been able to make elsewhere in this questionnaire.

7. Would you be prepared to be contacted to supply further information about your use of ERIC? Please highlight one of the responses below:

YES (did you supply your name in the box on the first page?)

NO

Thank you for taking the time to complete this questionnaire

APPENDIX II – SciFinder Scholar Survey

Edinburgh University Library
SciFinder Scholar's Impact on Research - Questionnaire

Edinburgh University Library (EUL) staff wish to make a quantitative and objective assessment of the impact of SciFinder Scholar on research activities within the School of Chemistry and other Schools in the University. This questionnaire is an attempt to obtain some of the information we need.

The results of the assessment will be reported to the College of Science & Engineering Library Committee in mid-April when they will inform a discussion about how this resource should be funded in future. The results will also be made available to the School of Chemistry and others in the Spring.

Our assessment of SciFinder Scholar's contribution to research at the School of Chemistry, forms part of EUL's involvement in a UK wide study attempting to assess the impact libraries have on the work and study of their members. In addition to SciFinder, EUL staff will be asking research staff at the School of Education to think about the contribution ERIC (Education Resources Information Center) has made to their research. EUL's full project plan is available at:

http://www.jiscmail.ac.uk/files/LIS-IMPACT/University_of_Edinburgh_Project_Plan.doc

SciFinder Scholar content: *abstracting and indexing information from 9,000 chemistry and related scientific journals from 1907 to present, as well as from conference proceedings, technical reports, books, dissertations and web preprints. Plus, patent information from more than 50 active patent-issuing authorities. Also, information on more than 24 million organic and inorganic substances, more than 51 million sequences and over 8 million single- and multi-step reactions. In addition there is information on more than 200,000 inventoried or regulated chemicals. Preprint articles (from eg all APS, ACS and AIP journals as well as high-impact servers such as ArXiv.org) are covered and Medline records are included too. It allows the ability to draw and search by chemical structure. Access is from your desktop. For details on downloading and installing the client software required please go to - http://www.lib.ed.ac.uk/resbysub/scifinder.shtml*

SCHOOL:

CATEGORY (please indicate an option from one of those below) **:**

Postgraduate **Research Staff** **Academic Staff**

YOUR NAME (optional) **:**

Any queries about this questionnaire, please contact Rowena.Stewart@ed.ac.uk

Please return completed questionnaires, by Friday 25th March to:

Liaison Librarian for Chemistry, Maths and Physics,
James Clerk Maxwell Library
Kings Buildings

Or as an email attachment

The questionnaire begins on the next page…

If, after completing the questions below, you would be prepared to provide us with further information about your use of SciFinder Scholar, please highlight YES below:

YES - please supply contact details:

NO

1. How many hours a week do you spend searching the research literature and other information sources relevant to your work/studies? *(Please give to the nearest half hour)*

2. If you entered zero as your answer to question 1, please supply in the space below a brief explanation of how you find the information you need for your work or studies.

(If you did not enter zero as your answer to question 1, please continue to question 3.)

3. Please enter a cross in the appropriate box to indicate how often you search for information for the reasons given.

	Frequently	Occasionally	Never
Writing up research (papers, review articles, theses, etc)			
Developing research plans			
Refereeing papers or grant proposals			
Sourcing hard-to-find materials, eg chemicals, pharmaceuticals			
Locating articles citing your own work			
Generating publication/citation figures of your own work			
Generating publication/citation figures of the work of others			
Teaching purposes			
Other 1 *(please give details in this space)***:**			
Other 2 *(please give details in this space)***:**			

4. This question attempts to discover a number of things *[the last part continues overleaf]*

i) your assessment of the different features of the information resources you use.

In the main section of the table below enter, beneath the resources you use, ratings for the different content, function or design features listed:

1 for poor 2 for average 3 for good

N.B. Enter a cross in the first row if you did not know a resource was available to you.

ii) an indication of your confidence in assigning these ratings. Perhaps you only use some resources for one type of enquiry and are not sure you have fully explored all the features listed, or perhaps you are confident your use of other resources is pretty comprehensive.

In the penultimate (bold) row, for the resources you have rated in the main table, enter your level of confidence in your assessment of the features:

L for Low M for Medium H for High

iii) your relative use of the resources you use for information searching. Should add up to 100%.

Enter (rows 2 to 8): 1 for poor 2 for average 3 for good	**Beilstein**	**Full-text journal sites** (eg ScienceDirect, RSC and ACS sites, Ingenta)	**Gmelin**	**Journal Citation Reports** (Impact Factors)	**Patent sites** (eg esp@cenet, US Patent and Trademark Office)	**Pre-print or open access respositories** (eg Chemweb.org, ArXiv.org, Citeseer)	**Printed Abstracts**	**SciFinder Scholar**	**Search engines – general** (eg Google, Ask Jeeves)	**Search engines – subject limited** (eg Google Scholar, Scirus, EEVL)	**Web of Science** (hosts, eg ISI's Science Citation Index)	**ZETOC**	**Other** (please name)**:**
I did not know I could access this (type of) resource **-** enter a cross as appropriate													
Relevance of results to your search													
Variety of content (ie variety of types of information sources, eg papers & patents & conference papers)													
Breadth of subject coverage relevant to your work/studies													
Age of earliest records													
Interface design													
Search functions (eg limiting options, thesauri, **controlled keywords, combining result sets, etc)**													
Results functions (presence of abstract, references etc, links to full-text, ability to search for full-text in library catalogue or web, cited and citing links)													
Ability to search by molecular formula or molecular structure													
Confidence in ratings above Low (L), Medium (M), High (H)													

…Question 4 contd

iii) Enter as a percentage, the proportion of time you spend searching for information using the resources you rated above. *N.B.Should add up to 100%.*

	Beilstein	**Full-text journal sites** (eg ScienceDirect, RSC and ACS sites, Ingenta)	**Gmelin**	**Journal Citation Reports** (Impact Factors)	**Patent sites** (eg esp@cenet, US Patent and Trademark Office)	**Pre-print or open access respositories** (eg Chemweb.org, ArXiv.org, Citeseer)	**Printed Abstracts**	**SciFinder Scholar**	**Search engines – general** (eg Google, Ask Jeeves)	**Search engines – subject limited** (eg Google Scholar, Scirus, EEVL)	**Web of Science** (hosts, eg ISI's Science Citation Index)	**ZETOC**	**Other** (please name):
Percentage of information searching time spent on the rated resources(%) **- does this row add up to 100?**													

5. In the table below, please rank the features listed in order of importance to you when deciding which searchable information resource to use.

0 = "of no importance" and may be entered as many times as appropriate.

For the remaining features:

start at 1 for the least important

rank the rest accordingly (2, 3, 4, 5, 6, 7, 8, 9, 10)
– the most important feature having assigned to it the highest number

Relevance of results of previous searches	
Variety of content (ie variety of types of information sources, eg papers & patents & conference papers)	
Breadth of subjects covered, ie do you want a one-stop-shop resource?	
Age of earliest records	
Interface design	
Search functions (eg limiting options, thesauri, **controlled keywords, combining result sets, etc)**	
Results functions (eg links to full-text, ability to search for full-text in library catalogue or generally, citation information and links)	
Ability to search by molecular formula or molecular structure	
Other please state:	
Other please state:	

Thank you for taking the time to complete this questionnaire

APPENDIX III – SciFinder Scholar supplementary questions

SciFinder Questionnaire – supplementary Impact questions – July 2005

If you have the time and would be kind enough to answer the questions below, I hope to get an idea of the difference having the use of SciFinder makes to your work. This would add a measure of "impact" to the project report but may also be useful to library staff attempting to promote the use of SciFinder by staff & students in other Schools.

Any questions or problems please get back to me.

Many Thanks,

Your name:

1) For what types of enquiry and for what subject areas do you find SciFinder Scholar most useful?

2) Have you undertaken similar work or study to that you do now but at an institution or company where SciFinder (Scholar) was not available to you? This would include University of Edinburgh before the Library bought a subscription.

3)
If you answered **yes to question 2**):
What differences to your work does having access to SciFinder Scholar?

If you answered **no to question 2**): What differences to your work do you imagine not having access to SciFinder would make? / What would you miss?